



2016

Features

- 2.0 x 1.6 x 0.85 MAX. mm of surface mounted quartz crystal units with thermistor.
- Excellent reliability characteristics such as heat and mechanical shock.
- Pb-free and satisfy RoHs requirements.
- Reflow soldering is available.

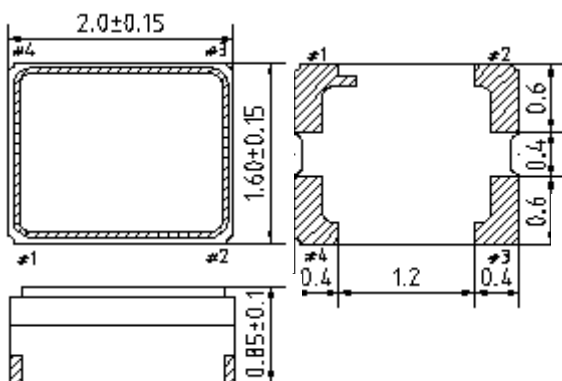
Applications

- Cellular phone(GSM & CDMA & WCDMA)
- GPS Module
- WIBRO,DMB,PDA
- Repeater

Specifications

	For Cellular	For GPS
Output Frequency	8.0 MHz ~ 52.0 MHz	8.0 MHz ~ 52.0 MHz
Supply Voltage	DC +1.7V ~ +3.3V	DC +1.7V ~ +3.3V
Output Level (10kΩ//10pF)	0.8 Vp-p min.	0.8 Vp-p min.
Current Consumption	1.5 mA Max. (Below 32 MHz) 2.0 mA Max. (Above 32 MHz)	1.5 mA Max. (Below 32 MHz) 2.0 mA Max. (Above 32 MHz)
Operating Temperature Range	-30°C ~ +85°C	-30°C ~ +85°C
Storage Temperature Range	-40°C ~ +85°C	-40°C ~ +85°C
Frequency Stability		
vs. Temperature (Refer to 25°C)	±1.0, ±2.0 ppm Max.	±0.5 ppm Max.
vs. Supply Voltage (±5%)	s 0.1 ppm Max.	±0.1 ppm Max.
vs. Load (10kΩ//10pF)	s 0.1 ppm Max.	±0.1 ppm Max.
vs. Aging (per 1 year)	s 1.0 ppm Max.	±1.0 ppm Max.
Frequency Tolerance (Initial at 25°C)	s 1.0 ppm Max.	±1.0 ppm Max.
Frequency Tolerance (After Reflow)	s 1.0 ppm Max.	±1.0 ppm Max.
AFC characteristics	Specify	Specify
Harmonics	-8 dBc Max.	-8 dBc Max.
Frequency Slope		
	at -20 ~ 65°C	±0.1 ppm/°C Max.
	at -30 ~ 85°C	±0.2 ppm/°C Max.
		±0.05 ppm/°C Max.
		±0.1 ppm/°C Max.

Dimensions (unit: mm)



Pad No.	Connection	
	TCXO	Vc-TCXO
#1	AFC or GND	Vcont
#2	GND	GND
#3	OUTPUT	Output
#4	VCC	Vcc

Land pattern (unit: mm)

